Smith, Diane

04

From:

Bailey, Marc A [marc@lanl.gov]

Sent:

Tuesday, August 20, 2013 3:41 PM

To:

Smith, Diane

Cc:

Saladen, Michael T; Chen, Isaac; Gallegos, Robert M; Medina, Louella B

Subject:

LANL NPDESPERMIT NO. NM0028355, COMMENT ON DRAFT NPDES PERMIT ISSUED

JUNE 29, 2013 WITH TABLES

Attachments:

WITH Tables ENV-DO-13-0115-D Smith NPDES Permit No NM0028355 Comments on Draft

NPDES Permit Issued June 29 2013 (2).pdf

Ms. Smith-

Attached (again) are DOE/LAN's comments on draft NPDES Permit No. NM0028355 for the Los Alamos National Laboratory. Tables 1-6 referenced in the comments were not attached to the original document sent to you on August 13, 2013, but are included here.

At approximately 10:45 a.m. the morning of August 13, 2013 we were evacuated from our building as the final review of the comments document was taking place. It became apparent that we could not get back into our offices for an extended period of time, so we recreated the document from a remote computer and had the cover letter re-signed in order to meet the comments eadline. During that confusion, Tables 1-6 were not included in Enclosure 1.

Please call if you have questions or need additional information.

Marc Bailey

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ENV-CP Group

Water Quality Permitting & Compliance

TA59-96-208, MS K490

505-665-8135





Environmental Protection Division
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Date: AUG 1 3 2013 Symbol: ENV-DO-13-0115

LAUR: 13-26245

Ms. Diane Smith U. S. Environmental Protection Agency Permit Processing Team (6W-NP) 1445 Ross Avenue, Suite 1200

Dear Ms. Smith:

Dallas, Texas 75202-2733

SUBJECT: LOS ALAMOS NATIONAL LABORATORY, NPDES PERMIT NO. NM0028355,

COMMENTS ON DRAFT NPDES PERMIT ISSUED JUNE 29, 2013

Enclosed are comments submitted by the U. S. Department of Energy (DOE) and the Los Alamos National Security, LLC (LANS) regarding the new draft National Pollutant Discharge Elimination System (NPDES) Permit for the wastewater treatment facilities at the Los Alamos National Laboratory. DOE/LANS wish to acknowledge the efforts of the EPA Region 6 staff, especially Isaac Chen, who prepared the new draft permit and documentation package.

Please enter this letter and the enclosed comments into the record of proceedings for NPDES Permit No. NM0028355. DOE/LANS respectively requests that EPA consider these comments and include the proposed revisions into the final permit. Please be assured that DOE/LANS are fully committed to comply with all requirements set forth in the final NPDES Permit.

Please contact Marc Bailey of the Laboratory's Environmental Compliance Programs (ENV-CP) by telephone at (505) 665-8135 or Gene Turner at (505) 667-5794 of the DOE Los Alamos Field Office if you have questions regarding these enclosed comments or if additional information would be helpful.

Sincerely,

Alison M. Dorries Division Leader

Environmental Protection Division

Los Alamos National Security, LLC

Sincerely,

Gene E. Turner

Environmental Permitting Manager

ene & Gurnel

Environmental Projects Office

Los Alamos Field Office

Department of Energy

AMD:GET:MS/lm

Enclosures: 1. Comments on draft NPDES Permit No. NM0028355 issued on June 29, 2013

Cy: James Hogan, NMED/SWQB, Santa Fe, NM, w/enc. Steven M. Yanicak, NMED/DOE/OB, w/enc., (E-File) Gene E. Turner, NA-OO-LA, w/enc., (E-File) Carl A. Beard, PADOPS, w/o enc., A102 Michael T. Brandt, ADESH, w/o enc., (E-File) Alison M. Dorries, ENV-DO, w/o enc., (E-File) Anthony R. Grieggs, ENV-CP, w/enc., (E-file) Michael T. Saladen, ENV-CP, w/o enc., (E-File) Marc A. Bailey, ENV-CP, w/enc., K490 (E File) Brett S. Henrikson, LC-LESH, w/enc., (E-File) LASOmailbox@nnsa.doe.gov, w/enc., (E-File) locatesteam@lanl.gov, w/enc., (E-File) ENV-CP Correspondence File, w/enc., K490

COMMENTS ON DRAFT NPDES PERMIT NO. NM0028355 ISSUED ON JUNE 29, 2013 8/13/13

General Comments:

1. The Department of Energy and Los Alamos National Security, LLC (DOE/LANS) support the EPA's proposed limitations on the use of the PCB congener method for reporting purposes only and not for enforcement purposes.

The draft permit properly excludes use of EPA Method 1668 for compliance purposes: it is not a 40 CFR Part 136-approved method. EPA issued a proposal (FR Vol. 75, No. 222, November 18, 2010) to incorporate the method into 40 CFR Part 136 and accepted comments addressing the validity of the method. EPA received comments from 35 respondents; only five (three states, one laboratory, and one laboratory organization) supported inclusion into Part 136. On May 18, 2012 EPA withdrew the proposed incorporation of the method (FR Vol. 77 No. 97, May 18, 2012).

Moreover, LANL is the only known facility in New Mexico where the congener method is being used to determine compliance with an NPDES permit limit. The proposal to use Method 1668 for monitoring and reporting only is consistent with all other New Mexico NPDES permits that specify use of the method.

As EPA notes, the NMED Surface Water Quality Bureau stated in a December 20, 2012 letter that "the State will condition the permit certification to require the use of Method 1668, most recent version thereof, with appropriate method specific MQLs, for purpose of PCB monitoring." DOE/LANS are submitting comments in opposition to the SWQB's proposed certification condition.

2. DOE/LANS request inclusion of schedules for compliance in the final permit, if necessary to address requirements incorporated into the final permit.

EPA and NMED have allowed, on a case-by-case basis, the inclusion of a schedule of compliance in NPDES permits issued to an existing facility (40 CFR 122.47 and 20.6.4.12.G NMAC, respectively). The schedule of compliance provides the permittee with adequate time to make necessary modifications to treatment systems and/or operations at the facility to comply with permit limits. DOE/LANS do not request a compliance schedule for specific requirements in the draft permit but will need to evaluate if compliance schedules are necessary to address any new or revised permit requirements incorporated into the final NPDES permit issued by EPA.

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Additionally, DOE/LANS request an opportunity to review and respond to requirements specified in the New Mexico 401 certification, and public comments or concerns submitted to EPA during the comment period prior to issuance of the final permit.

3. DOE/LANS request elimination of the requirements related to selenium at Outfalls 03A027, 03A048, and 03A199 because there is no reasonable potential (RP) for selenium water quality standard exceedances.

The fact sheet for the draft permit indicates an RP for selenium water quality standard exceedances at Outfalls 03A027, 03A048 and 03A199. The appearance of selenium in samples taken at LANL cooling towers is a false positive caused by bromine analytical interference. These cooling towers routinely use bromine as a biocide.

It has been well established that when using EPA Method 200.8 (ICP-MS) for selenium analyses and bromine is present in the waste stream, there will be a positive interference and selenium will appear to be present in the sample. DOE/LANS documented this occurrence in comments submitted to EPA in 2006 on the current permit. As a result, the DOE/LANS used SW 846 Method 7742 (included in Section G. Test Methods in Part II of the current permit) for selenium monitoring and reporting purposes during the existing permit monitoring period. However, during sampling, analyses and reporting for DOE/LANS's NPDES Reapplication Project (Summer/Fall 2011), some selenium results were reported on the EPA's application Form 2C using EPA Method 200.8. These results indicated the presence of selenium, but they are false positives due to the presence of bromine. Upon discovery of the false positives, split samples from Summer/Fall 2011 were sent to the analytical laboratory for selenium re-analysis using SW 846 7742. The split sample results confirm that selenium is not present in the samples (see Table 1). More recent sample results are also included in Table 1. Tables 3, 4, and 5 apply the data analyzed by SW 846 Method 7742 in the recalculation of the RP for selenium for Outfalls 03A027 (Table 3), 03A048 (Table 4), and 03A199 (Table 5). Based on the RP recalculations, there is no reasonable potential for selenium water quality standard exceedances at these outfalls. Therefore, DOE/LANS requests that the selenium requirements for these outfalls be deleted from the permit.

4. For the sake of clarity regarding electronic reporting requirements, DOE/LANS request that EPA delete Part I.B. Reporting of Monitoring Results (Major Discharges) from the draft permit, and retain only Part III.D.4 Discharge Monitoring Reports and Other Reports of this permit until the proposed NPDES Electronic Reporting Rule (FR/Vol. 78, No.146/July 30, 2013) is promulgated.

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Page 23 of Part I. B Reporting of Monitoring Results (Major Discharges) states, in part: "Monitoring information shall be submitted electronically [emphasis added] as specified in Part III.D.4 of this permit...". On the other hand, Part III.D.4 Discharge Monitoring Reports and Other Reports states, in part: "Monitoring results must be reported to EPA on either the electronic or paper [emphasis added] Discharge Monitoring Report (DMR) approved formats. Monitoring results can be [emphasis added] submitted in lieu of the paper DMR Form... "These potentially conflicting provisions, if retained in the final permit, would leave it unclear as to whether and which monitoring results must be submitted electronically.

Additionally, on July 30, 2013 EPA the proposed "NPDES Electronic Reporting Rule" that would require electronic reporting for current paper-based NPDES Reports. Comments on this proposed rule must be received by October 28, 2013. It is not clear how the final version of this rule, if promulgated would affect the current draft permit requirements.

Deletion of <u>Part I. B Reporting of Monitoring Results (Major Discharges)</u> would allow DOE/LANS the option of reporting electronically or with paper until promulgation of the new rule provides clarity on EPA electronic reporting requirements.

- 5. DOE/LANS request reduction in sampling frequencies at Outfalls 051 and 03A160 to onceper-week based on low discharge volumes and frequencies, and NMIP guidelines.
 - Page 35, Table 10: Recommended Monitoring Frequencies for Industrial Wastewater Permits, of the EPA Region 6's "Procedures for Implementing National Pollutant Discharge Elimination System Permits in New Mexico NMIP" recommends sampling frequencies for conventional pollutants, nonconventional pollutants, metals and toxics at industrial sites, like Los Alamos National Laboratory. In particular, Table 10 in the NMIP recommends a sampling frequency of three per week for outfalls that discharge once per day, and recommends once per week sampling for outfalls (other than pH) that discharge once per week or less.

The Laboratory's TA-50 Radioactive Waste Treatment Facility (RLWTF) has not discharged since November 2010 as a result of using the mechanical evaporator. Additionally, RLWTF has constructed two Zero Liquid Discharge (ZLD) tanks that can passively evaporate treated effluent. The ZLD tanks are currently being processed for permitting under the NMED's Ground Water Discharge Permit program and are not currently in operation. Based on discharge records prior to November 2010, and with options of using the existing mechanical evaporator or new ZLD evaporation tanks, RLWTF would discharge to Outfall 051 only once or twice per week if evaporation is not an option.

LAUR-13-26245

ENCLOSURE 1

COMMENTS ON DRAFT NPDES PERMIT NO. NM0028355 ISSUED ON JUNE 29, 2013 8/13/13

The cooling tower at TA-35 Building 124 (Outfall 03A160) discharges treated and untreated cooling water blow-down on an intermittent basis, based on the programmatic needs at the TA-35 National High Magnetic Field Laboratory (NHMFL). The TA-35 NHMFL cooling tower discharged an average of 6 times per month, with an average of 2700 gallons per discharge based on the flows recorded during the last year (July 2012 – June 2013). A typical discharge lasts only about 2-7 hours.

Sample frequencies of once-per-week are (1) adequate to demonstrate compliance with effluent limits and protection of human health and the environment at Outfalls 051 and 03A160, (2) more stringent than current permit requirements, and (3) consistent with NMIP guidelines.

6. DOE/LANS request the deletion of the WET monitoring and reporting requirements for Outfalls 001, 03A027, 03A160, and 03A199 based on past WET testing results.

The draft permit properly deletes Whole Effluent Toxicity (WET) monitoring and reporting requirements for Outfalls 03A048, 03A113, 03A160, and 03A181. All four outfalls passed the required WET tests during the monitoring periods of the existing permit. WET monitoring and reporting requirements remain in the draft permit for Outfalls 001, 03A027, 03A160 and 03A199. The EPA Reasonable Potential (RP) Analyzer spreadsheets for Outfalls 001, 03A027, 03A160, and 03A199 indicate that an RP exists for these four outfalls, however, these four outfalls also passed the required WET tests during the monitoring periods of the existing permit, which demonstrated that treated discharges showed no observed lethal effect concentration in 100% effluent.

- 7. DOE/LANS request that the EPA notification and reporting requirements on Page 1 of Part II.B of the draft NPDES permit be consistent with the New Mexico Water Quality Control Commission regulations. DOE/LANS recommends 24-hour notification and a 7-day reporting requirements for overflows be incorporated into Part II.B 24-HOUR ORAL REPORTING section.
 - 20.6.2.1203 NMAC requires submission of the same information regarding spills and overflows, a 24-hour oral notification requirement, and 7-day and 15-day written reports. As currently stated in the draft NPDES permit, EPA is generating an additional report (5-day) with the same information and no additional value.
- 8. DOE/LANS request EPA refrain from adding any new effluent limits into the final permit for Outfalls 05A055 and 051 at this time. Establishing new effluent limits prior to evaluating

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new data would be premature and not be representative of existing conditions and treatment at the facilities, and effluent quality discharged to the environment.

The TA-50 Radioactive Liquid Waste Treatment Facility (RLWTF) has not discharged to Outfall 051 since November 2010. Additionally, the TA-16 High Explosives Wastewater Treatment Facility (HEWTF) has not discharged to Outfall 05A055 since November 2007. As a result, DOE/LANS were unable to collect samples for Form 2C constituents at the time the permit re-application was submitted. In fact sheets of the permit re-application, DOE/LANS committed to collecting grab samples for the Form 2C constituents when the RLWTF and HEWTF discharge through the respective outfalls. DOE/LANS will submit these data to EPA and NMED on the Form 2C permit application, upon receipt of the data. These new data can be used to evaluate a reasonable potential for water quality standard exceedances. Page 3 of Part II.E. Reopener Clause, allows EPA to reopen and modify the permit during the life of the permit, in accordance with provisions in 40 CFR 122.62.

DOE/LANS request the opportunity to provide EPA with new data for Outfalls 051 and 05A055, if discharges through these outfalls are initiated during the life of the new permit. These data would be used by EPA to evaluate the reasonable potential of water quality standard exceedances, and to establish potential new effluent limits at the respective outfalls based on current treatment technology at the time of discharge.

Outfall Specific Comments:

Outfall 001:

1. DOE/LANS support that lack of aluminum monitoring and reporting requirements and notes that the "no RP" conclusion was based on proper sampling methods.

Page 1 of Part I.A <u>Effluent Limitations and Monitoring Requirements</u> of the draft permit does not require aluminum monitoring and reporting at Outfall 001 because there is not a reasonable potential for a water quality standard exceedance. 20.6.4.900(I) (1) and (2) NMAC states that total recoverable aluminum criteria is based on samples that are filtered to minimize mineral phases. NMED SWQB (2013 Draft Assessment Protocol) concluded that a filter of 10μm pore size minimizes mineral-phase aluminum without restricting amorphous or colloidal phases. However, if turbidity of a sample is less than 30 NTU, no filtration is needed to minimize mineral phases. Samples with greater than 30 NTU must be filtered with 10μm disposable in-line capsule filter prior to analysis (SWQB Assessment Protocol – Public

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Draft 3/20/13). Turbidity at Outfall 001 is not greater than 30 NTU; therefore proper sampling methods were used.

- 2. Page 2 of Part I.A <u>Effluent Limitations and Monitoring Requirements</u> of the draft permit requires Whole Effluent Toxicity (WET) monitoring and reporting. DOE/LANS request the deletion of the WET monitoring and reporting requirements for Outfall 001 based on past WET testing results (no lethal effects to test species at or below the critical dilution of 100%). See General Comment #6.
- 3. Page 1 of Part I, top of page, should read OUTFALL 001 (TA-3-22).

Outfall 13S:

- 1. DOE/LANS request the Latitude/Longitude modification be incorporated into the permit to identify the change in sampling location. Page 3 of Part I of the draft permit identifies the discharge location for Outfall 13S at Latitude 35°51′08″N, Longitude 106°16′33″W. As stated in the 2012 NPDES permit re-application, the discharge location/sampling location for Outfall 13S is Latitude 35°51′08″N, Longitude 106°16′29″W. This is the location where Outfall 13S discharges into Canada del Buey.
- 2. Page 3 of Part I, top of page, should read: <u>OUTFALL 13S Sanitary Waste Water System</u> (TA-46-347).
- 3. Public comments at the EPA Public Meeting on July 30, 2013 requested further information about composting activities at LANL. On August 15, 2012 the DOE/LANS notified EPA Region VI of its intent to compost and land apply biosolids at the Laboratory for beneficial use. The compost operation would take place at the Laboratory's TA-46 Sanitary Waste Water System (SWWS) Facility. Prior to initiating operations, the facility must register with the NMED's Solid Waste Bureau and provide a Notice of Intent to NMED's Ground Water Quality Bureau. The NOI and registration were submitted to NMED on July 31, 2012 and August 1, 2012 respectively. On December 21, 2012 DOE/LANS received a response from NMED suggesting the proposed land application would be surface disposal and not land application for beneficial use. LANS have consulted with NMED and intend to clarify and re-submit the NOI.

Upon approval of the composting operation and land application method by NMED, Part IV-Element 1 of the draft NPDES permit sets out requirements and conditions for preparation and reuse of biosolids (compost). The requirements are based on 40 CFR Part 503

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regulations – Standards for the Use or Disposal of Sewage Sludge. The conditions in Part IV of the draft NPDES permit include: ceiling concentrations for metals and PCBs; monitoring and testing requirements; pathogen control; vector attraction reduction; general conditions; management practices; and, notification requirements. The draft permit and existing state and federal requirements adequately protect human health and the environment. Therefore no additional monitoring and reporting should be required.

Outfall 051:

- 1. Public comments brought up at the EPA Public Meeting on July 30, 2013 requested further information regarding prior WET testing at RLWTF and recommended that this information be incorporated into the fact sheet for Outfall 051. DOE/LANS do not oppose this information being provided in the fact sheet and/or response to comments. Detailed information regarding prior WET testing and DOE/LANS's related corrective actions can be found in the quarterly compliance reports submitted to EPA from 2007 2013.
- 2. Page 5 of Part I, top of page, should read: <u>OUTFALL 051 Radioactive Liquid Waste Treatment Facility (TA-50-1)</u>.
- 3. DOE/LANS request the flow monitoring requirements be changed from continuous/record to an estimate/once-per-day basis. Page 5 of Part I.A <u>Effluent Limitations and Monitoring Requirements</u>, of the draft permit requires the flow frequency be monitored continuously/record. RLWTF has not discharged since November 2010. If discharges to the Outfall 051 resume, it is estimated that RLWTF would only discharge intermittently under batch treatment and release. Flow is currently measured and reported based on tank volume discharge.
- 4. DOE/LANS request that the definition of "estimate" for Outfall 03A022 be incorporated into the draft permit for Outfall 051. Page 6 of Part I.A. bottom of page, should read: Flow Measurements, "Estimate" flow measurements shall not be subject to the accuracy provisions established at Part III.C.6. The daily flow value may be estimated using best engineering judgment.
- 5. DOE/LANS request the sampling frequencies for copper, zinc and hardness be changed to once-per-week. Page 5 of Part I.A <u>Effluent Limitations and Monitoring Requirements</u> monitoring frequencies for copper and zinc have increased from once-per-month to three times per week. DOE/LANS request reduction in sampling frequencies for these constituents to once-per-week at Outfall 051 based on the NMIP. See General Comment #5.

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6. DOE/LANS request that the required 3-hr. composite WET test be replaced with a grab sample requirement. Page 6 of Part I.A <u>Effluent Limitations and Monitoring Requirements</u> of the draft permit requires a 3-hr. composite sample be collected for the WET testing purposes. Typical flow durations for discharges from RLWTF through Outfall 051 only last approximately 1-1.5 hours. The NMIP sample type for once-per-week discharges at industrial outfalls is generally by grab and is appropriate here.

Outfall 05A055:

DOE/LANS request that the new permit retain "Estimate" for the flow monitoring requirement at Outfall 05A055. Page 7 of Part I.A <u>Effluent Limitations and Monitoring Requirements</u> of the draft permit requirements for flow monitoring changed from "Estimate" (in the current permit) to "Record". The current permit defines "Estimate" as flow values that are be estimated using best engineering judgment. Outfall 05A055 has not discharged since November 2007. Typical discharges prior to November 2007 were low in volume and short in duration.

Outfall 03A022:

- 1. Page 9 of Part I authorizes Outfall 03A022 to discharge storm water and roof drain water to Mortandad Canyon. DOE/LANS request that the permit also incorporate once through cooling into the discharge description (for emergency use only) at the top of page 9 of Part I, as stated on page 11 of the fact sheet. Page 9 of Part I, top of page, should read: "During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge storm water, once through cooling (for emergency use only), and roof drain water to Mortandad Canyon, in segment 20.6.4.128 of the Rio Grande Basin. (Cooling tower blowdown is not authorized for discharge at this outfall.)."
- 2. DOE/LANS request the outfall be renamed "04A022". Historically, non-contact cooling water was categorized by the 04A designation. Outfall category 03A of the current permit is for treated cooling tower water discharges. The outfall description for 03A022 specifically states "Cooling tower blowdown is not authorized for discharge at this outfall." Therefore, the change of outfall name to 04A022 is more appropriate.

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Outfall 03A027:

- EPA's RP calculation sheet documents an RP for selenium, but monitoring/reporting requirements and effluent limits are not incorporated into the draft permit. False positives for selenium at this cooling tower were caused by bromine analytical interference when using EPA Method 200.8. DOE/LANS request EPA not incorporate monitoring and reporting requirements or effluent limits in the permit for selenium at Outfall 03A027. See General Comment #3.
- 2. DOE/LANS request the deletion of the WET monitoring and reporting requirements for Outfall 03A027 based on past WET testing results (no lethal effects to test species at or below the critical dilution of 100%). See General Comment #6.
- 3. Page 15 of Part I Outfall description at top of page should delete the reference to cooling tower TA3-285. Cooling tower TA3-285 has been inoperable for years and was demolished in 2012.
- 4. DOE/LANS request the sample frequency for E Coli be changed to two-per-month, as indicated in the fact sheet. Page 15 of Part I.A of the draft permit specifies an E. Coli monitoring frequency of two-per-week. However, page 11 (3rd paragraph) of the fact sheet states: "E. coli Monitoring requirements and effluent limitations apply at Outfalls 001, 13S, or 03A027 where final treated sanitary wastewater actually discharges. The monitoring frequency is 2-per-month based on the frequency recommended in the NMIP for a municipal facility with activated sludge technology and a design flow of 0.1 < 0.5 MGD."

Outfall 03A048:

1. Page 17 of Part I.A <u>Effluent Limitations and Monitoring Requirements</u> of the draft permit require selenium monitoring of three-per-week, with a monthly average and daily maximum effluent limits of 5.0 mg/l. DOE/LANS request the monitoring/reporting requirements and the effluent limits for selenium be deleted based on false positive results using Method 200.8. See General Comment #3.

Outfall 03A160:

1. DOE/LANS request deletion of cyanide requirements at Outfall 03A160. Page 19 of Part 1 <u>Effluent Limitations and Monitoring Requirements</u> of the draft permit requires three-perweek monitoring and reporting, and contains a permit limit of 5.2 mg/l for cyanide. Cyanide

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is not used in operations of the cooling tower. The cyanide levels may have been a result of impacts from flying ash during the Las Conchas fire being deposited in the cooling tower. The cooling tower was off-line for an extended period of time during the fire and ash may have deposited in the cooling tower basin. The sample submitted for the re-application was collected shortly after the fire (July 18, 2011). Additional cyanide samples recently collected at 03A160 do not confirm the result from the July 18, 2011 sample. Table 2 contains the data collected after the permit application was submitted. When applying guidelines in the NMIP for additional samples, the geometric mean of the samples demonstrates that cyanide RP does not exist (see Table 6). In the alternative, if EPA retains cyanide requirements, DOE/LANS request a reduction in sampling frequency to once-per-week at Outfall 03A160.

- 2. Page 19 of Part I.A <u>Effluent Limitations and Monitoring Requirements</u> of the draft permit requires a monitoring frequency for copper at three times per week. DOE/LANS request a reduction in sampling frequency to once-per-week at Outfall 03A160 based on NMIP. See General Comment #5.
- 3. Page 19 of Part I.A <u>Effluent Limitations and Monitoring Requirements</u> requires WET monitoring at Outfall 03A160. DOE/LANS request the deletion of the WET monitoring and reporting requirements for Outfall 03A160 based on past WET testing results (no lethal effects to test species at or below the critical dilution of 100%). See General Comment #6.

Outfall 03A199:

- 1. EPA's Fact Sheet and RP calculation sheets documents an RP for selenium at Outfall 03A199, but monitoring/reporting requirements and effluent limits are not incorporated into the draft permit. False positives for selenium at this cooling tower were caused by bromine analytical interference. DOE/LANS request EPA not incorporate monitoring and reporting requirements or effluent limits in the permit for selenium at Outfall 03A199. See General Comment #3 Tables 1 and 5.
- 2. EPA's Fact Sheet and RP calculation sheets documents an RP for cyanide at Outfall 03A199 but monitoring/reporting requirements and effluent limits are not incorporated into the draft permit. The cyanide result in EPA's RP calculation sheet is documented at 13.6 μg/l. However, the NPDES Re-applications Form 2C documents a non-detect analytical result for cyanide (< 1.5 μg/l). DOE/LANS request that EPA not include monitoring and reporting requirements or permit requirements for cyanide because no reasonable potential exists (see Table 2 and 5).

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- 3. EPA's RP calculation sheet documents a reasonable potential for copper at Outfall 03A199, but monitoring/reporting requirements and effluent limits are not incorporated into the draft permit. Based on the copper result of 13.2 μ g/l and a hardness of 122 mg/l in the permit reapplication Form 2C, the potential effluent limit should be 26.7 μ g/l.
- 4. DOE/LANS request the deletion of the WET monitoring and reporting requirements for Outfall 03A199 based on past WET testing results (no lethal effects to test species at or below the critical dilution of 100%). See General Comment #6.

TABLE 1

Selenium Data Outfalls 03A027, 03A048, 03A113, and 03A199

Outfall 03A027* 03A048*	NPDES03A027-11-13855 NPDES03A027-11-13855 NPDES03A048-11-13856 NPDES03A048-11-13856 NPD48-13-38787	12-358 12-356 433119 458320	Sampled 11/16/2011 11/16/2011 8/8/2011	Name selenium selenium	Result 11.8 1.02	Units ug/L	Qualifier	Detected Y	Method EPA:200.8	Lab GEL
03A048*	NPDES03A027-11-13855 NPDES03A048-11-13856 NPDES03A048-11-13856	12-356 433119	11/16/2011					Y	EPA:200.8	GEL
03A048*	NPDES03A048-11-13856 NPDES03A048-11-13856	433119	ang paragaga paragaga	selenium	1.02	**			areginger i podekt ar over den bereftet av stille 1971.	
	NPDES03A048-11-13856		8/8/2011	to the contrate the second		ug/L	N	Y	SW-846:7742M	SwRI
	NPDES03A048-11-13856		8/8/2011		ghangat spisishpanta spisiaa	Introduce and an interest to the		Y	EPA:200.8	GEL
034048*		#52370	2424224	selenium	2.8	ug/L	J	Y	1,000,000,000,000,000,000,000,000,000,0	
034048*	NP048-13-38787		8/8/2011	selenium	0.922	ug/L	В	Y	SW-846:7742	SwRI
		2013-1107	7/10/2013	selenium	5.95	ug/L		У	200.8	GEL
03/10-10	NP048-13-38787	2013-1109	7/10/2013	selenium	1.00	ug/L		У	SW-846:7742	SwRI
03A048*	NP048-13-39240	2013-1231	7/18/2013	selenium	10.5	ug/L		У	200.8	GEL
U3AU46	NP048-13-39241	2013-1232	7/18/2013	selenium	0.841	ug/L	В	Y	SW-846:7742	SwRI
024040*	NP048-13-39242	2013-1295	7/22/2013	selenium	4.88	ug/L	J	Y	200.8	GEL
03A048*	NP048-13-39243	2013-1301	7/22/2013	selenium	0.88	ug/L	В	Υ	SW-846:7742	SwRI
	NP048-13-39249	2013-1327	7/24/2013	selenium	< 1.50	ug/L	U	N	200.8	GEL
03A048*	NP048-13-39244	2013-1328	7/24/2013	selenium	0.83	ug/L		Y	SW-846:7742	SwRI
	NP048-13-39245	2013-1381	7/29/2013	selenium	15.10	ug/L		Υ	200.8	GEL
03A048*	NP048-13-39248	2013-1382	7/29/2013	selenium	1.01	ug/L	ĺ	Y	SW-846:7742	SwRI
	NP048-13-39246	2013-1440	7/31/2013	selenium	9.64	ug/L		Y	200.8	GEL
03A048*	NP048-13-39247	2013-1441	7/31/2013	selenium	0.81	ug/L		Y	SW-846:7742	SwRI
3 35 35 35 3 3 3 3 3 3 3 3 3 3 3 3 3 3	NPDES03A113-11-13857	543422	8/31/2011	selenium	< 1.5**	ug/L	U	N	EPA:200.8	GEL
03A113*	NPDES03A113-11-13857	544153	8/31/2011	selenium	0.473	ug/L	В	Y	SW-846:7742	SwRI
and the second s	NPDES03A199-11-13860	543422	8/31/2011	selenium	5.2	ug/L	Arthurisan a Maria	Υ	EPA:200.8	GEL
03A199*	NPDES03A199-11-13860	544153	8/31/2011	selenium	0.856	ug/L	В	Y	SW-846:7742	SwRI
	NP199-13-39283	2013-1234	7/18/2013	selenium	5.01	ug/L		V	EPA:200.8	GEL
03A199*	NP199-13-39288	2013-1235	7/18/2013	selenium	0.856	ug/L	В	, , ,	SW-846:7742	SwRI
	NP199-13-39284	2013-1295	7/22/2013	selenium	2.82	ug/L	j	Y	EPA:200.8	GEL
03A199*	NP199-13-39289	2013-1301	7/22/2013	selenium	0.745	ug/L	B B	Y	SW-846:7742	SwRI
	NP199-13-39286	2013-1381	7/29/2013	selenium	3.07	ug/L	1	Y	EPA:200.8	GEL
03A199*	NP199-13-39291	2013-1381	7/29/2013	selenium	0.732	ug/L	В	Y	SW-846:7742	SwRi
	NP199-13-39287	2013-1440	7/31/2013	selenium	1.97	ug/L	<u> </u>	Y	EPA:200.8	GEL
03A199*	NP199-13-392292	2013-1441	7/31/2013	selenium	0.754	ug/L	В	<u> </u>	SW-846:7742	SwRI

^{*} Bromine used at Outalls 03A027, 03A048, 03A113, 03A199

#.# Reported on Form 2C-positive interference

#.## Use to recalculate RP

^{**} No RP- Recalculation unecessary

Cyanide Data
Outfalls 03A160 and 03A199

Outfall	Field Sample ID	Chain Of Custody No.	Date Sampled	Parameter Name	Report Result	Screening Value (per NMIP)	Report Units	Lab Qualifier	Detected	Analytical Method	Lab
03A160	NPDES03A160-11-13858	349844	7/18/2011	Cyanide (Total)	0.0136	0.0136	mg/L		Y	EPA:335.4	GEL
03A160	NP160-13-39230	2013-1231	7/18/2013	Cyanide	< 0.00167	0.000835	mg/L	U	N	335.4	GEL
03A160	NP160-13-39231	2013-1295	7/22/2013	Cyanide	< 0.00167	0.000835	mg/L	U	N	335.4	GEL
03A160	NP160-13-39232	2013-1327	7/24/2013	Cyanide	< 0.00167	0.000835	mg/L	U	N	335.4	GEL
03A160	NP160-13-39233	2013-1381	7/29/2013	Cyanide	0.00234	0.00234	mg/L	J	γ	335.4	GEL
03A160	NP160-13-39234	2013-1440	7/31/2013	Cyanide	< 0.00167	0.000835	mg/L	U	N	335.4	GEL

Geometric Mean*: 0.00157852 mg/L

Outfall	Field Sample ID	Chain Of Custody No.	Date Sampled	Parameter Name	Report Result	Report Units	Lab Qualifier	Detected	Analytical Method	Lab
03A199	NPDES03A199-11-13860	543422	8/31/2011	Cyanide (Total)	< 0.0015**	mg/L	U	N N	EPA:335.4	GEL
03A199	NP199-13-39283	2013-1234	7/18/2013	Cyanide	ND	ug/i	Ü	N	335.4	GEL
03A199	NP199-13-39284	2013-1295	7/22/2013	Cyanide	ND	ug/L	U	N	335.4	GEL
03A199	NP199-13-39285	2013-1327	7/24/2013	Cyanide	ND	ug/L	Ų	N	335.4	GEL
03A199	NP199-13-39286	2013-1381	7/29/2013	Cyanide	ND	ug/L	U	N	335.4	GEL
03A199	NP199-13-39287	2013-1440	7/31/2013	Cyanide	ND	ug/L	U	N	335.4	GEL

#.### Reported on Form 2C

^{*} Geometric mean used in RP calculation in Table 6

^{**} RP calculation for 03A199 has 13.6 ug/L entered for CN result which is the value used in the 03A160 RP calculation

TABLE 3

Outfall 03A027 Original EPA Region 6 RP Spreadsheet Using 11.8 ug/L Selenium

I.F. Permitter											·				15	1	
INDECS: Permit No.	17	A 8	C	6.	E-	F	G	(A NIE	J	K	1, 1	M	И	0	Ψ		
Galace Four Industrial and Industrial Annual Private Industrial and Industrial Annual Private Industrial and Industrial Annual Private Industrial Industr																•	
Figure (Emour) Five (MOD)									50							i	
Part Part Ethward Fow (cfs)			GDI								For indus	trial and fed	deral facilit	v. use the h	om Jeerlai	nthly averag	e flow
RECEIVING STREAM											for the pas	t 24 month	s. For PO	TWs, use t	he design	flow.	
Recoiling Stream Name	23		ľ]	
Receiving Stream Name	24	RECEIVING STREAM						DATA INP	UT]	
Receiving Stream Name	25								ļ							1	
It a publicly owned lake or reservoir (criter** " " if it's a lake, "O" front) 0 -	26		ne													1	
It a publicly owned lake or reservoir (criter** " " if it's a lake, "O" front) 0 -			<u> </u>													1	
An acute squared rife criteria considered (if yes, 0-mo)	1785			1	461 74 741 1	-t 000 M)							1	
An expensive varies supply offices considered (1 yes, 0-mo)	-135	is a publicly owned lai	(e or reserv	or enter	WHICE	ake, U II	NOU				<u> </u>					1	
An impation water supply criteria considered (1s yes, 0-mo)	- 112	Are shoole square ine c	nteria cons	neidored i	i– vas 0∸	(1) 1 (UI.	2003 Starro									1	
1. Uvestock watering and wildlife habitat criteria epplied to all efference 1. USGS 1. USG	-57	Are domestic water si	poly criteri	a considere	id (1= ves	0=no)					<u> </u>					1	
1. Uvestock watering and wildlife habitat criteria epplied to all efference 1. USGS 1. USG	23																
USGS Flow Station USGS Flow Station USGS USGS	35						ms]	
USGS Flow Station USGS Service Station USGS USG									:]	
Receiving Stream T876 (signature) Receiving Stream Hardmass (mg) as CaCOO RANGE 0 - 400 78.8 Outfall ODI's Hardmess Usin Receiving Stream Hardmass (mg) as CaCOO RANGE 0 - 400 78.8 Outfall ODI's Hardmess Usin Receiving Stream Hardman Manner Fow (43) (45) Receiving Stream Hardman Manner Fow (43) (45) (45) (45) (45) (45) (45) (45) (45	36	USGS Flow Station															
Seaching Streem Heriothest (mp) as CaClOs RANGE: 0 400 78.8 Outfall OVI* Interdness Use Reaching Streem Hermonic Mean Flow (d3) (c1) 0.055 Certain Ovi* Sungturent more mean flow date S. Viv. Seaching Streem Hermonic Mean Flow (d3) 0.055 Certain Ovi* Sungturent more mean flow date S. Viv. Seaching Streem Hermonic Mean Flow (d3) 0.055 Certain Ovi* Sungturent more more modified hermonic mean flow date S. Certain Ovi* Sungturent more mean flow date Certain Ovi* Sungturent more mean flow date Certain Ovi* Sungturent more mean flow date Certain Ovi* Sungturent more mean f																1	PD 9-
Reacying Stream Critical Low Flow (453) (cfs) 0.55 0.14aii 201's Long-term flow 17.1 1.5 1				<u> </u>								<u></u>				-	
Receiving Stream Harmonic Mean Flow (rich)	39	Receiving Stream Har	aness (mg	/I as CaCO	5)	HANGE:	J - 400									1	
April Apri	13	Receiving Stream Crit	ICE! LOW FR	ow (4Q3) (0	78) K				ļ	Enter have	nonic mee	or modifie	d harmoni	c mean flow	v data	1	
Second Stream allowed for mixing (F) S Enter 1, if stream morphology data is not available or for intermittent streams S				BETIOW (CIS	Y					PILITO HOUSE		. or mount	- 15tar()(1981)			1	
Fraction of stream allowed for mixing (F)		nH (Avn)	10 (C)	ļ						 				. 10.		1	•
Principle of Critical Low Flow			wad for mi	xina (F)						Enter 1. if	stream mo	phology d	ala is nol a	vailable or	for intermi	tent stream	s. No
Instream Waste Concentration Levestocks Aucte Chronic Human Chronic England Chronic Agustic Chronic Human Chronic England Chronic Chroni				I											3]	Se
CAS No. MOL Ca (upl) Ca (up			T T				Instreem		ncentration		Livestock8	Acute	Chronic	Human	Need		
Mercury dissolved CAS No. MOL Ce (ugh) 213°Ce deform (ugh Ugh Ug	130				Ambient	Effluent	Acute	Domestic		Human	Domestic	irrigation]	Ambie
Mercury, clissohwar 7439-97-6 0.005 0 0 0 18+100 1	7.6.3	POLLUTANTS			Conc	Conc.	Aquatic	Supply	Aquatic							1	Cond
Memorary total					Ca (ug/i)	Ce (ug/l)										4	Ca (uç
Michibedenum, dissolved 7439-98-7					Carrottipas-											ł	
Midy-Column, Total recor (7499-98)				0,005												ŀ	
Nickel, dissolved (P) 7440-D24 0.5 0.72985 1.554888 0.354976 0.354976 0.354976 700 1E+100 382.7593 42.51274 5 5 5 5 5 5 5 5 5																ļ:	
Selenium, dissolved (P7782-49-2				1	HERVINE.	0.70000										1.	
Salenium, dis (SQ4 5500 mg/l) 5					2011/06/06											l	La company
Selenium, total recover 7782-49-2 5						1.1.0										1	
Silver, dissolved					Strategic Strate	cost 4 At One										1	
Thaillium, dissolved (P 7440-28-0					100 100 100 100 100 100 100 100 100 100											1	
Signormonoscience 7440-66-62 20 1.62255 3.455022 0.789151 0.78915	150	Theffirm discoved /D	7440-28-		***************************************	seggine Distriction in										1	
Cyaride, total recovers 67-12-5 10			7440-66-6		Service of the service of	1 62255										1	1.7
Second Politic Polit		Cvanide, total recovers			Array V						200	1E+100	5.2	22	5.2]	
Second Politic Polit	7.7	Dioxin		0.00001			0	0	0	0						1	بنبيا
Second Politic Polit	21.7															4	
METALS AND CYANIDE, as Total	2. 9	POLLUTANTS	CAS No.	STORET												1	
Antimony, Total (P) 7440-38-C 01097 N/A			<u> </u>	<u> </u>		Limits	Limits	Limits	Limits	Limita	Limits	UQ/I	ug/I	UQI	ועטי	4	Ugvi
Arsenic, Total (P) 7440-38-2 1002 NJA NIA NIA NIA NIA NIA NIA NIA NIA NIA NI						ALLA	NIIA	NI/A	AI/A	AIZA .	NIZA	NIA	N/A	N/A	N/Δ	1	N/A
Beryllium, Total					}											1	N/A
Gadmium, Total 7440-43-9 01027 Ni/A Ni/A Ni/A Ni/A Ni/A Ni/A Ni/A Ni/A					!											1	N/A
Chromium (iii), dissolv-1605-83- 01033 N/A					 											1	NA
Chromium (VI), dissolv 18540-29-5 01034 NIA]	N/A
Chromium, Total 7440-47-3 01034 Ni/A Ni/A	101	Chromium (VI), dissolv	18540-29-9										N/A]	N/A
Copper, Total 7440-50-6 01042 Ni/A						N/A	N/A	N/A	N/A	N/A							N/A
Manganase, dissovled 7439-96-5 01056 Ni/A N			7440-50-6	01042			N/A									4	N/A
Nicolation Nic	504	Lead, Total														4	N/A
307 Mercury, Total 7439-97-6 71900 N/A N/A	396	Manganese, dissoyled														4	
Disagraphic															CASH SET AND ADDRESS OF THE PARTY OF	1	State Street & LAA
Molybdenum, total recovers T82-49-2 01062 N/A																4	N/A
11 Nicket Total (P) 7440-02-0 01067 N/A					<u> </u>											1	
Selenium, Total (P) 7782-49-2 01147 N/A																1	N/A
Selenium, Total (SO4 > 500 mg/l) 01147					 											†	N/A
Selentum; Total recover 7782:49-2 01147 N/A N/A 21.89708 20 21.89708 N/A 20 13.33333 20 13.33333 N/A 20 21.89708 N/A 20 21.8																1	N/A
Silver, Total					Straig February											5	N/A
Thallium, Total (P) 7440-28-0 01059 N/A]	N/A
Cyanide, total recovere 57-12-5 00720					<u> </u>										N/A		N/A
Cyanide, total recovere 57-12-5 00720 N/A												N/A	N/A	N/A			N/A
										N/A	N/A	N/A	N/A	N/A	N/A	J	N/A
											. 1					-	

RP Spreadsheet Using 1.02 ug/L Value for Selenium (Method 7742). ent streams. No RP for Selenium.

Ambient	Effluent
Conc	Conc.
Ca (ug/l)	Ce (ug/i
to majorite feature to the to the control of the co	
150000000000000000000000000000000000000	1000 mod poster
	0.72985
	1,02
000 CM	1.02
4476 9000 (00)	3833. 0 353
	2020-0-52
	1.62254
5 11 14	10 mm
Daily Max	MOD. AV
Total	Total ug/i
COLOR CONTRACTOR	uw.
N/A	N/A
N/A	N/A
N/A	N/A
N/A	NA
N/A	N/A
NA	N/A
N/A	NA
N/A	- NA
N/A	
= NA	N/A
N/A	N/A
N/A N/A	N/A N/A
N/A N/A	N/A
N/A	N/A
Lun	I CONTACT

Note: No limits in draft permit for selenium

Recommend no permit limit for selenium.

Outfall 03A048 Original EPA Region 6 Spreadsheet using 2.8 ug/L Selenium Value

IR PEPER POPER NO.	17	Α	8	Ċ	G I	ΙĒ	E	G	T 1		K		М	N	0	[-
NAMOQUEST Parent No.									LANL	Windows:	,,,,,,,		- 1			
2 Flare (Effected Flow (FGO)			mit No.							55						
22 Pant Effective (1904)	20	Outfall No.(8)													
A																
28 Reaching Stream Name		Plant Efflue	nt Flow (c	fs)					0.1612			for the past ?	4 months. F	or POTWs. u:	e the design	ñow.
27 Baselving Stream Name				<u> </u>					DATA 1110							
28 Reserving Stream Name		RECEIVING	SINEAN	1				1.00	DATAINE	01						<u> </u>
27 Basin Name		Constident C	Stonam Min						Loc Alamo	e Ceauca						
20 Na spitch your date or reservoir (enter "I" if it's a lake, "O" if not 0 0 1 1 1 1 1 1 1 1				Irie												I
20 In publicly commel latine or reservoir (enter "1" if It's a lake, "0" if not) 0				Code No									: -			
30 Are scale acquate life criteria considered (1 yea, 9-mo) 0	29	Is a publicly	owned la	ke or reser	voir (enter	1° if it's a l	ake. "O if n	ot)								
31 And chronic aqualits: (if confident considered (1'e yes, 0-mo) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	30	Are acute a	quatic life	criteria con	nsidered (1	(MUST en	er 1" for 2	005 Standa								
33 Lingston water supply criteria considered (1 - yes, 0-no.) 0 0 0 0 0 0 0 0 0	31	Are chronic	aquatic lit	e criteria c	onsidered (1= yes, 0=:	10)		0							
35 S.	32	Are domest	ic water s	upply criter	ia consider	ed (1≖ yes,	0=no)									
Section Sect								L	0							
Selection Steam Selection		Livestock w	retering an	<u>id wildlife h</u>	abilat crite	ia applied i	o all stream	18			ļ					
SPR		WOOD E	. 0:						Heae		1					
39 Receiving Stream TSS (mg/l)				- No												
39 Recalving Stream Hardness (mg) as CaCOs) ARIGE: 0 - 400 178 For intermitate laters, where affluent National Streem Later Archives Color Co											For intermitte	of straam ar	fer effluent T	89		
AD Receiving Stevent Critical Low Flow (CG3) (cfs) 0 0 0 0 0 0 0 0 0					Mas CaCC	l	RANGE: 0	- 400							date, 20 mol	l is used)
11 Receiving Stream Harmonic Mean Flow (ris) 20.3 8.4 8.								· · · · · · · · · · · · · · · · · · ·								
42 Aug. Water Temperature (C)									0.00155						w data	
43 Pfraction of stream allowed for mixing (F) 1		Avg. Water	Temperat	ure (C)												
45 Fraction of Critical Low Flow																
189					bing (F)						Enter 1, if ste	eem morphol	ogy dala is no	t available or	for intermitter	at streems.
441 POLLUTANTS		Fraction of	Critical Lo	w Flow									A 44.44		10	Manual
141 POLLUTANTS		-				\$ black	Carret				Duman					
142		EOT LITAN	ITC													
143 Marcury, Usias 143-97-8, 0.005 0 0 0 0 0 1E+100		POLLOTAN	(10	CARNA	MOI											
144 Mercury, total	143	Marcuro di	havloss			00 (0)00	00 (00)									
145 Molybdenum, dissolv 7439-99-7	144	Mercury, to	tal							0						
1481 Molybderrum, total rep 7439-98-7						00.000 (PA	2005/0000		0	0	0	1E+100	1000			1E+100
147 Nickel, dissolved (P) 7440-02-0 0.5 0.604027 1.286577 1.286						14410000	Team reads	0	0	0			1E+100	1E+100		
146 Selenium, dis (SCA > 500 mg/m) 5		Nickel, diss	olved (P)	7440-02-0												
150 Selenium, total recov 7782-49-2 5 2.8 5.964 5.964 5.964 5.9672 1E+100 1E+100 5 20 6 151 Silver, dissolved 7440-22-4 0.5 0 0 0 0 0 0 1E+100 1E+100 1E+100 1E+100 152 Thaillium, dissolved 7440-28-0 0.5 0 0 0 0 0 2 1E+100 1E+100 1E+100 1E+100 152 Thaillium, dissolved 7440-88-6 20 0 0 0 0 0 0 0 0							2,8									
151 Silver, dissolved	149	Salenium, d	lis (SO4 >	500 mg/i)												
152 Tabilium, dissolved (7440-26-0 0.5 0 0 0 0 0 2 1 15+100 15+				7782-49-2												
163 Zinc, dissolved						10110100000	0									
154 Cyanide, total recove 1784-01-8 0.0001 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0							entited a battering of the							15:+100		
155 Dioxin 1764-01-8 0.00001 D D D 0 0 0.000E-05 1E+100 1E+1						rhannathringskijk							15+100			
277			ISI TOOVO			C/61/06/4/609							1F+100	1F+100		
278 POLLUTANTS CAS No. STORET Domestic Irrigation or Wildlife Aquatic Aquatic Aquatic Health Max Conc Avg Conc Total Total 279 Umits Limits Limits Limits Limits Limits Limits Limits Umits Limits Umits Limits Umits Limits Umits Limits Umits Limits Umits Umits Limits Umits Um		CIOXIII		1104.01.0	0.00001	10, 100,000,00		<u> </u>								
279		POLLUTAN	ITS	CAS No.	STORET		Domestic	Inigiation								
296 Antimony, Total (P) 7440-38-2 1002 N/A		Ï														
297 Arsenic, Total (P) 7440-38-2 1002 NI/A NI/A NI/A NI/A NI/A NI/A 0,086538 9,086538 9 13,44608 13,32 288 Baryllium, Total 7440-41-7 01012 NI/A NI/A NI/A NI/A NI/A NI/A NI/A NI/A	295						1 21 27 1					3000		1		Yough State
298 Beryllium, Total 7440-41-7 01012 N/A																
299 Cadmium, Total 7440-43-9 01027 N/A																
300 Chromium (iii), dissol18085-83- 01033																
301 Chromium (VI), disso 18540-29-9 01034 NVA																
302 Chromium, Total 7440-47-3 01034 N/A	300	Chromium ((11), GISSON	18540-20												
303 Copper, Total 7449-50-8 01042 N/A																
304 Lead, Total 7439-92-1 01051 NI/A NI/A NI/A NI/A NI/A NI/A NI/A NI/A																
305 Manganese, dissovle 7439-96-5 01056 N/A															N/A	
308 Mercury, Total 7439-97-6 71900 N/A										N/A	N/A		N/A	N/A		N/A
307 Mercury, Total 7439-97-8 71900 N/A	308	Mercury, To	Hal	7439-97-6	71900											
309 Molybdenum, total re 7439-98-7 01002 NI/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N	307	Mercury, To	otel													
310 Nickel, Total (P) 7440-02-0 01067 N/A	308	Molybdenur	m, dissolv	7439-98-7												
311 Selenium, Total (P) 7782-49-2 01147 N/A	309	Melybdenur	m, total re	7439-98-7	01082											
312 Selenium, Total (\$C4 > 500 mg/l 01147																
313 Selectium, Total reco ¹ 7782-49-2 01147 N/A N/A S N/A N/A N/A N/A S 5 5 5 5 314 Stiver, Total 7440-22-4 01077 N/A																
314 Silver, Total 7440-22-4 01077 N/A	240	Calant	oui (SO4	7782-46-2		200000000000000000000000000000000000000										
315 Thallium, Total (P) 7440-28-0 01059 N/A	1312	Silver Total	A101 1000	7440-22-4	01077											
316 Zinc, Total 7440-86-8 1092 N/A																
						T										
			tal recove				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

RP Spreadsheet Using 0.922 ug/L. Value for Selenium (Method 7742), No RP for Selenium,

Ambient	Effluent
Conc	Conc.
Ca (Ug/I)	Ca (ug/i)
10-04-04	2000000
सम्बद्धाः	
TARYSAN (ASS).	Alagai/Caic
trobustisis s	
	0.60403
asanas	0.922
HERMINE.	
176200500	0.922
250955092230	0
An unalimate to	
1,000	0
1912/2012/1912/19	
2025992000	
Daily Max	Mon. Avo
Total	Total
uo/	no/
BUNGSTERN	
N/A	N/A
13.4481	13.32
N/A	N/A
N/A	- N/A
N/A	N/A
N/A	N/A
N/A	NA
N/A	N/A
N/A	N/A
N/A	NA
N/A	N/A
N/A	- NA
N/A	N/A

Recommend no permit limit for selenium

Outfall 03A199 Ephemeral Original EPA Region 6 RP Spreadsheet Using 5.2 ug/L Seleium and 13.6 ug/L Cyanide Values

B	С	מ	E	F	Ģ	Н	J	ħ	К	L	M	N	Ô	۵
Permittee	1						LANL							
NPDES Pe	ermit No.						NM00283	55						
Outfall No.(03A199							
Plant Efflue	ent Flow (M	GD)					0.0395						use the h	
Plant Efflue	ant Flow (cf	5)					0.061225			for the pas	t 24 month	For POT	Ws, use th	te design f
	<u> </u>							<u> </u>						
RECEIVING	G STREAM						DATA INF	ÜT						
								<u> </u>					1, 111	
Receiving 5	Stream Nar	ne en					Sandia Ca	inyon						
Basin Nam							Rio Grand	ie .						
Waterbody	Segment (ode No.				Ī	20 6 4 120	3						
is a publicly	y owned lat	e or reserve	oir (enter	"1" if !	's a lake, 't)" if not)	1000 O SEE							
Are acute a	aquatic life c	riteria consid	dered (1	(MUS	Tenter"1" f	or 2005 St	34464 (146)							
Are chronic														
Are domes						}	0	İ						
Are inigation	on water su	ppiy criteria	conside	red (1=	yes, 0≂no		0							
	watering an					treams			- : :					
		11							10.0					
USGS Flow	w Station						USGS							
	oring Station	1 No.					SJR							
	Stream TSS						4.3		Outtall 00					
Receiving			as CaC	Os)	RANGE: 0	- 400	122			i's Hardnes				
Receiving							0		Outfell 00	1's Long-te	m flow	1, 11,		
Receiving							0.00155		Enter herr	nonic mear	or modifie	d harmonic	mean floy	v data
Avg. Water							21.4							
pH (Avg)		1 1 1 1 1			F	10 11	8.2	100	1 (3)			1000		12,543,115
Fraction of	stream allo	wed for mix	ing (F)						Enter 1, if a	tream morp	hology data	s not aveila	ble or for int	emattent str
Fraction of							0			L				
B	С	D	ε	F	G	н	J.	P	K	ì	М	N	0	Q
	1		[Waste Co.	ncentration		Livestock&	Acute	Chronic	Human	Need
				Ambien	Effluent	Acute	Domestic	Chronic	Human	Domestic	Imigation	Wildlife	Aquatic	Aquatic
POLLUTAN	NTS			Cono	Conc.	Aquatic	Supply	Aquatio	Health	Criteria	Criteria	Criteria	Criteria	Criteria
2	1	CAS No.	MQL	Ca (ug			d.dom (ug		Cd,hh (ug/l	ug/l	ug/l	3	ugil	ug/l
Mercury, di	lissolved	7439-97-6				0	0	0	0	1E+100	1E+100	1E+100	1.4	0.77
Mercury, to		7439-97-8		43.45	0.01	0.0213	0.0213	0.0213	0.020774		1E+100	0.77	1E+100	1E+100
	ım, dissolve		-,,-,-	NAME AND	2.6	5.964	5,964	5,964	5.816741		1000	1E+100	1E+100	1E+100
	ım, total rec			1.10	2.6	5.964	5.984	5 984	5.816741		1E+100	1E+100	7920	1895
	solved (P)		0.5	108,338	0.380712			0.810916			1E+100		554,0195	
	dissolved (F			Agricia	0.0007.12	0.010910	0.010810	0	0.7 50004	50	130	- 60	1E+100	
	dis (SO4 >		5	2130303		0	ŏ	0	0	50	250	50	1E+100	
	total recove		5	1	5.2	11.076	11,076	11.076	10.80252		1E+100	5	20	5
		7440-22-4		33444				0.129575			1E+100	1E+100	4.528529	
	AT 113/64E E	1 (441)-//-4		1000000	0.000033	0.128373	0.1293/3	0.125373	0.120370	2	1E+100	1E+100	1E+100	
				1000000	1 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 -		, 0		<u>, </u>		2000			
	dissolved (P	7440-28-0		77.00			3 140320	1 2 110276	3 042246			25nnn -	I 191.7191	
Thallium, d	dissolved (P olved	7440-28-0 7440-66-6	20						3.042316			25000		145.2584
Thailijum, d Zinc, disso Cyanide, to	dissolved (P olved	7440-28-0 7440-66-6 57-12-5	20 10		13.6	28,968	28,968	28.968	28.25274	200	1E+100	5.2	22	145.2584 5.2
Thailljum, d Zinc, disso Cyanide, to Dioxin	dissolved (P olved otal recover	7440-28-0 7440-66-6 57-12-5 1764-01-6	20 10 1E-05		13.6	28,968 0	28,968 0	28.968 0	28.25274 0		1E+100 1E+100	5.2 1E+100	22 1E+100	145.2584 5.2 1E+100
Thallium, d Zinc, disso Cyanide, to Dioxin	dissolved (P olved	7440-28-0 7440-66-6 57-12-5	20 10	Ē		28,968	28,968 0	28.968 0 P	28.25274 0 K	200 3.00E-05	1E+100 1E+100 M	5,2 1E+100	22 1E+100	145.2584 5.2 1E+100
Thaillium, d Zinc, disso Cyanide, to Dioxin	dissolved (P bived otal recover	7440-28-0 7440-86-6 57-12-5 1764-01-8	20 10 1E-05 E		13.6 G	28,968 0	28,968 0 J Livestock	28.968 0 P Acute	28.25274 0 K Chronic	200 3.00E-05 L Human	1E+100 1E+100 M Dally	5,2 1E+100 N Monthly	22 1E+100 0 Dally Max	145.2584 5.2 1E+100 O Mon. Avg
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Thaillium, di Zinc, disso Cyanide, to Dioxin 8	dissolved (Polived otal recovers	7440-28-0 7440-86-6 57-12-5 1764-01-6 D CAS No.	20 10 1E-05 E STORE		13.6 G	28,968 0	28,968 0 J Livestock	28.968 0 P Acute	28.25274 0 K Chronic	200 3.00E-05 L Human	1E+100 1E+100 M Dally	5,2 1E+100 N Monthly	22 1E+100 0 Dally Max	145.2584 5.2 1E+100 O Mon. Avg
Theillium, d Zinc, disso Cyanide, to Dioxin 8 POLLUTAI	dissolved (Polived otal recover: C NTS AND CYAN	7440-28-0 7440-66-6 57-12-5 1764-01-6 D CAS No.	20 10 1E-05 E STORE1		Omestic	28,968 O H Imigation Limits	28,968 0 Livestock or Wildlife Limits	28.968 0 P Acute Aquatic Limits	28.25274 0 K Chronic Aqualic Limits	200 3.00E-05 L Human Health Limits	1E+100 1E+100 M Dally Mex Cond ug/l	5,2 1E+100 N Monthly Avg Conc ug/i	22 1E+100 0 Daily Max Total ug/1	145.2584 5.2 1E+100 O Mon. Avg Total ug/l
Theillium, dizinc, dissoi Cyanide, to Dioxin B POLLUTAI METALS A	dissolved (Polyed otal recovers	7440-28-0 7440-86-6 57-12-5 1764-01-6 0 CAS No.	20 10 1E-05 E STORE1		Oomestic	28,968 0 H Irrigation Limits	28,968 0 J Livestock or Wildlife Limits	28.968 0 P Acute Aquatic Limits	28.25274 0 K Chronic Aquatic Limits	200 3.00E-05 L Human Health Limits	1E+100 M Dally Max Cond ug/I	5,2 1E+100 N Monthly Avg Cond ug/1 N/A	22 1E+100 () Daily Max Total ug/l	145.2584 5.2 1E+100 C Mon. Avg Total ug/
Theillium, dizinc, dissoi Cyanide, to Dioxin B POLLUTAI METALS A	dissolved (Polyed otal recovers	7440-28-0 7440-66-6 57-12-5 1764-01-6 0 CAS No. IDE, as To 7440-36-0 7440-38-2	20 10 1E-05 E STORE 1at 01097		Oomestic Limits	20,968 0 H Irrigation Limits N/A N/A	28,968 0 Livestock or Wildlift Limits N/A N/A	28.968 0 P Acute Aquatic Limits N/A N/A	28.25274 0 K Chronic Aqualic Limits N/A N/A	200 3.00E-05 L Human Health Limits N/A N/A	1E+100 1E+100 M Dally Max Cond ug/i N/A N/A	5,2 1E+100 N Monthly Avg Conc ug/i N/A N/A	22 1E+100 O Daily Max Total ug/ N/A N/A	145.2584 5.2 1E+100 C Mon: Avg Total ug/ N/A N/A
Thaillium, d Zinc, disso Cyanide, to Dioxin B POLLUTAI METALS A Antimony, Arsenic, To	dissolved (Polyed otal recovers C NTS AND CYAN Total (P) otal (P)	7440-28-0 7440-66-6 57-12-5 1764-01-6 0 CAS No. IDE, as To 7440-38-2 7440-41-7	20 10 1E-05 E STORE1 tat 01097 1002		Oomestic Limits N/A N/A N/A	20,968 O H Irrigation Limits N/A N/A N/A	28,968 0 Livestock or Wildlife Limits N/A N/A N/A	28.968 0 P Acute Aquatic Limits N/A N/A N/A	28.25274 0 K Chronic Aqualic Limits N/A N/A N/A	200 3.00E-05 L Human Health Limits NIA NIA NIA	1E+100 1E+100 M Dally Max Cond ug/i N/A N/A N/A	5,2 1E+100 N Monthly Avg Conc ug/i N/A N/A N/A	22 1E+100 Daily Max Total ug/l N/A N/A	145.2584 5.2 1E+100 C Mon: Avg Total ug/ N/A N/A N/A
Thaillium, d Zinc, disso Cyanide, to Dioxin B POLLUTA Antimony, Assenic, To Benyillum, Cadmium,	dissolved (Polived otal recovers C C C C C C C C C	7440-28-0 7440-86-6 57-12-5 1764-01-6 0 CAS No. IDE, as To 7440-36-2 7440-41-7 7440-43-9	20 10 1E-05 E STORE1 tat 01097 1002 01012		Omestic Limits N/A N/A N/A	29,968 0 H Irrigation Limits N/A N/A N/A N/A	28.968 0 J Livestock or Wildlife Limits N/A N/A N/A N/A	28.968 0 P Acute Aquatic Limits N/A N/A N/A N/A	28.25274 0 K Chronic Aquatic Limits N/A N/A N/A N/A	200 3.00E-05 L Human Health Limits NIA NIA NIA NIA	1E+100 1E+100 M Dally Max Conc ug/i N/A N/A N/A N/A	5.2 1E+100 N Monthly Avg Conc ug/1 N/A N/A N/A N/A	22 1E+100 C) Daily Max Total ug/l N/A N/A N/A N/A	145.2584 5.2 1E+100 Mon. Avg Total ug/ N/A N/A N/A
Thaillium, d Ziric, disso Cyanide, to Dioxin B POLLUTAR Antimony, Arsenic, Te Beryllium, Cadmium, Chromium	dissolved (Polyed otal recover: INTS AND CYAN Total (P) Total (P) (III), dissolv	7440-28-0 7440-86-6 57-12-5 1764-01-6 CAS No. IDE, as To 7440-38-2 7440-41-7 7440-43-9 (16065-83-1	20 10 1E-05 E STORE1 tat 01097 1002 01012 01027		Domestic Limits N/A N/A N/A N/A N/A	29,968 0 H Irrigation Limits N/A N/A N/A N/A N/A	28.968 0 J Livestock or Wildlife Limits N/A N/A N/A N/A N/A N/A	28.968 0 P Acute Aquatic Limits N/A N/A N/A N/A N/A	28.25274 O K Chronic Aquatic Limits N/A N/A N/A N/A N/A	200 3.00E-05 L Human Health Limits N/A N/A N/A N/A N/A	1E+100 1E+100 M Dally Max Conc ug/i N/A N/A N/A N/A N/A N/A	5.2 1E+100 N Monthly Avg Conc ug/i N/A N/A N/A N/A N/A N/A	22 1E+100 Daily Max Total ug/l N/A N/A N/A N/A	145.2584 5.2 1E+100 O Mon. Avg Total ug/ N/A N/A N/A N/A
Thaillium, d Zinc, disso Cyanide, to Dioxin 8 POLLUTAI METALS Antimony, Arsenic, To Beryllium, Cadmium, Chromium	dissolved (Polyed otal recover: INTS AND CYAN Total (P) Total (P) (III), dissolv	7440-28-0 7440-86-6 57-12-5 1764-01-6 CAS No. IDE, as To 7440-38-2 7440-41-7 7440-43-9 (16065-83-1	20 10 1E-05 E STORE1 tat 01097 1002 01012 01027		Omestic Limits N/A N/A N/A	29,968 0 H Irrigation Limits N/A N/A N/A N/A	28.968 0 J Livestock or Wildlife Limits N/A N/A N/A N/A	28.968 0 P Acute Aquatic Limits N/A N/A N/A N/A	28.25274 0 K Chronic Aquatic Limits N/A N/A N/A N/A	200 3.00E-05 L Human Health Limits NIA NIA NIA NIA	1E+100 1E+100 M Dally Mex Conc ug/i N/A N/A N/A N/A N/A N/A N/A N/A	5.2 1E+100 N Monthly Avg Conc ug/i N/A N/A N/A N/A N/A N/A N/A N/A	22 1E+100 Daily Max Total ug/l N/A N/A N/A N/A N/A	145.2584 5.2 1E+100 C Mon. Avg Total ug/ N/A N/A N/A N/A N/A N/A N/A
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Theillium, disso Cyenide, to Cyenide, to Dioxin B POLLUTA! METALS Antimony. Arsenic, To Benyillium, Cadmium, Chromium C	dissolved (P) wed otel recover. C NTS NTS AND CYAN Total (P) Total (III), dissolv (IVI), dissolv	7440-28-0 7440-66-6 57-12-5 1764-01-6 D CAS No. IDE, as To 7440-38-2 7440-43-8 16065-83-7 440-43-8 17440-47-3 17440-47-3 17440-47-3 17440-47-3 17440-47-3 17440-47-3 17440-47-3 17440-47-3 17440-47-3 17440-47-3 17440-47-3 17439-95-5 7439-97-5	20 10 1E-05 E STORE 101097 10002 01012 01034 01034 01034 01042 01056 71900		Dornestic Limits N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	20,968 0 H Irrigation Limits N/A	28.968 0 J Livostock or Wildith Limits N/A	28.968 0 0 KACute Aquatic Limits N/A	28.25274 0 K Chronic Aqualic Limits N/A	200 3.00E-05 L Human Health Limits N/A	1E+100 1E+100 M Dally Max Conc Ugf) N/A	5.2 1E+100 N Monthly Avg Conc ugf N/A	22 1E+100 Daily Max Total Ug/1 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	145.2584 5.2 1E+100 0 4Mon. Avg Total ug/1 N/A
Thaillium, d. Ziric, disso Cyanide, to Dioxin 8 POLLUTA! METALS A Artimony, Arsenic, To Beryllium, Chromium Chromium, Chromiu	dissolved (P) NTS NTS AND CYAN Total (P) Total (III), dissolv (M), dissolv (M), dissolv al i al i al i se, dissovlet Total Total	7440-28-0 7440-68-6 57-12-5 1764-01-8 D CAS No. IDE, as To 7440-38-0 7440-38-2 7440-43-9 16065-83-1 16540-29-5 7440-50-8 7439-92-1 7439-97-6 7439-97-6	20 10 1E-05 E STORE1 1002 01012 01034 01034 01034 01035 01051 01055 01056 71900	722425000	Oomestic Limits N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	20,968 O H Irrigation Limits NIA	28.968 0 J Livestock or Wildith Limits N/A	28.968 0 P Acute Aquatic Limits N/A	28.25274 0 K Chronic Aquatic Limits N/A	200 3.00E-05 Luman Health Limits NIA	1E+100 1E+100 M Dally Max Conc ug/i N/A	5.2 1E+100 Nonthly Avg Conc ug/i N/A	22 (IE+100 Daily Max Total Ug/1 N/A N/A N/A N/A N/A N/A N/A N/A	145.2584 5.2 1E+100 0 Mon. Avg Total ug/1 N/A
Thaillium, d Zinc, disso Zinc, disso Cyenide, to Dioxin B J J POLLUTAR Antimony, Antimony, Cadmium, Chromium Ch	dissolved (P) wed otal recover. C NTS AND CYAN Total (P) otal (P) Total ((W), dissolv	7440-28-0 7440-66-6 57-12-5 1764-01-6 0 CAS No. DE, as To 7440-38-0 7440-38-2 7440-41-7 7440-38-3 16065-83-1 16065-83-1 17440-50-8 17440-47-3 7440-50-8 1749-97-6 4749-97-6 7439-97-6 7439-97-6	20 10 1E-05 E STORE 1002 01097 1002 01012 01033 01034 01034 01042 01056 71900 71900 1060	722425200	Oomestic Limits N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	20,968 O Irrigation Limits NIA	28.968 0 J Livestock or Wildlift Limits N/A	28.968 0 p Acute Aquatic Limits N/A	28.25274 0 K Chronic Aquatic Limits NIA	200 3.00E-05 L Human Health Limits N/A	1E+100 1E+100 M Dally Max Conc ug/i N/A	5.2 1E+100 Monthly Avg Conc ug/i N/A	22 IE+100 Daily Max Total ug/l N/A N/A N/A N/A N/A N/A N/A N/A	145.2584 5.2 1E+100 0 Mon: Avg Totel ug/1 N/A
Theillium, d Zinc, disso Zinc, disso Cyanide, to Dioxin S POLLUTAI S METALS A Artimony, Cadmium, Cadmium, Cadmium, Chromium Chrom	dissolved (P) wed otel recover. NTS AND CYAN Total (P) Total (III), dissolv (IV), dissolv	7440-28-0 7440-66-6 57-12-5 1764-01-6 D CAS No. IDE, as To 7440-38-0 7440-38-0 7440-41-7 7440-43-9 1740-65-83-1 166-62-29-7 1740-50-8 1740-50-8 1749-98-5 17439-97-6 7439-97-6 7439-97-6	20 10 1E-05 E STORE1 1002 01097 1002 01012 01034 01034 01034 01056 71900 71900 1062		Domestic Limits N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	28,968 O H Irrigation Limits N/A	28.968 0 J Livestock or Wildlife Limits N/A	28.968 0 P Acute Aquatic Limits N/A	28.25274 O K Chronic Aquatic Limits N/A N/A N/A N/A N/A N/A N/A N/A N/A N/	200 3.00E-05 L Human Health Limits N/A	1E+100 1E+100 M Dally Max Conc ug/i N/A	5.2 1E+100 N Monthly Avg Conc ug/I N/A	22 1E+100 Delty Max Total ug/l N/A N/A N/A N/A N/A N/A N/A N/A	145.2584 5.2 1E+100 0 Mon. Avg. Total ug/1 N/A
Theillium, d Zinc, disso Zinc, disso Cipinal C	dissolved (P) wed otal recover. C NTS NTS AND CYAN Total (P) Total Total (III), dissolv (IV), dis	7440-28-0 7440-66-6 77410-66-6 D CAS No. IDE, as To 7440-38-0 7440-38-2 7440-41-7 7440-43-8 16065-83-7 7440-43-8 7440-45-8 7439-97-5 7439-97-6 7439-97-7 7440-02-0 7439-97-7	20 10 1E-05 E STORE1 1002 01097 1002 01012 01034 01034 01034 01051 01055 71900 71900 71900 101067		Domestic Limits N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	20,968 O H Irrigation Limits N/A	28.968 0 J Livostock or Wildith Limits N/A	28.968 0 D Acute Aquetic Limits N/A	28.25274 O K Chronic Aqualio Limits NIA NIA NIA NIA NIA NIA NIA NIA NIA NI	200 3.00E-05 L Human Health Limits NIA	1E+100 1E+100 M Dally Max Conc ugf N/A	5.2 1E+100 N Monthly Avg Conc ug/I N/A	22 1E+100 Daily Max Total Up/1 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	145.2584 5.2 1E+100 0 Mon. Avg Total ug/1 N/A
Theillium, d Zinc, disso Zinc, disso Zinc, disso Condition Conditi	dissolved (P) NTS NTS AND CYAN Total (P) Total (P) Total (III), dissolv (M), dissolv al i se, dissovier Total	7440-28-0 7440-68-6 7440-68-6 57-12-5 1764-01-8 D CAS No. IDE, as To 7440-38-0 7440-38-0 7440-38-2 7440-43-9 16065-83-1 7440-29-5 7439-96-5 7439-97-6	20 10 1E-05 E STORE 1 01097 1 0102 0 0102 0 0102 0 0103 0 0103 0 0103 0 0103 0 0105 0 0105 0 0106 0 0106		Oomestic Limits N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	20,968 O H Irrigation Limits NIA	28.968 0 J Livestock or Wildlift Limits N/A	28.968 0 P Acute Aquatic Limits N/A	28.25274 0 K Chronic Aquatic Limits N/A	200 3.00E-05 L Human Health Limits N/A	1E+100 1E+100 M Dally Max Concugit N/A	5.2 1E+100 Nonthly Avg Conc ug/I N/A	22 (IE+100) Deliy Max Total Ug/I N/A N/A N/A N/A N/A N/A N/A N/A	145.2584 5.2 1E+100 0 Mon. Avg Total ug/1 N/A
Theillium, d Theil	dissolved (P) wed otal recover. C NTS AND CYAN Total (P) otal (P) Total ((iii), dissolv ((iii), dissolv (iv), dissol	7440-28-0 7440-66-6 57-12-5 1764-01-6 CAS No. IDE, as To 17440-38-0 7440-41-7 7440-43-9 1740-43-9 1740-58-1 7440-47-3 7440-58-1 7439-97-5 7439-97-5 7439-97-7 7439-97-7 7439-97-7 7439-97-7 7439-97-7 7439-97-7 7439-97-7	20 10 1E-05 E STORE1 1002 01097 1002 01012 01034 01034 01034 01056 71900 1060 1060 01067 01067 01067		Oomestic Limits N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	20,968 O H Irrigation Limits NIA	28.968 0 J Livestock or Wildlift Limits N/A	28.968 0 p Acute Aquatic Limits N/A	28.25274 0 K Chronic Aqualic Limits NIA	200 3.00E-05 L Human Health Limits N/A	1E+100 1E+100 M Dally Max Conc ug/i N/A	5.2 1E+100 Monthly Avg Conc ug/i N/A	22 IE+100 Daily Max Total ug/i N/A N/A N/A N/A N/A N/A N/A N/A	145.2584 5.2 1E+100 0 Mon. Avg Totel ug/1 N/A
Theillium, d Zinc, disso Zinc, disso Cipenide, to Dioxin For B FollLUTAI For Artimony, Cadmium, Cadmium, Cadmium, Chromium Chromi	dissolved (P) hved otel recover. I C NTS AND CYAN Total (P) otal (P) Total (III), dissolv (IV), dissolv (IV), dissolv id al se, dissolve total (P) Total (P) Total (P) Total (SO4 Total recover.	7440-28-0 7440-66-6 57-12-5 1764-01-6 D CAS No. IDE, as To 7440-38-0 17440-38-0 1760-58-3-1 16065-83-1 16065-83-1 1740-39-2 1740-39-2 1740-39-2 1740-39-7 1740-39-7 1740-39-7 1740-39-7 1740-39-7 1740-39-7 1740-39-7 1740-39-8 17782-49-2	20 10 1E-05 E STORE 1002 01097 01012 01027 01034 01034 01034 01051 01055 01056 71990 71990 01067 01067 01067		Domestic Limits N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	28,968 O H Irrigation Limits N/A	28.968 0 J Livestock or Wildlift Limits N/A	28.968 0 P Acute Aquatic Limits N/A	28.25274 O K Chronic Aquatic Limits NIA NIA NIA NIA NIA NIA NIA NIA NIA NI	200 3.00E-05 L Human Health Limits N/A	1E+100 1E+100 M Dally Max Conc ug/i N/A	5.2 1E+100 N Monthly Avg Conc ug/I N/A	22 1E+100 Daily Max Total Ug/I N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	145.2584 5.2 1E+100 0 Mon. Avg. Total ug/1 N/A
Theillium, d Zinc, disso Zinc, disso Cipenide, to Dioxin Theilium, d Theilium, d Theilium The	dissolved (P) wed otal recover. C NTS AND CYAN Total (P) Total (III), dissolve (IV), dissolve	7440-28-0 7440-66-6 77410-66-6 D CAS No. IDE, as To 7440-38-0 7440-38-2 7440-41-7 7440-43-8 16063-83-7 7440-43-8 7440-43-8 7440-43-8 7440-43-8 7440-43-8 7440-43-8 7440-43-8 7440-43-8 7440-7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	20 10 1E-05 E STORE: 01097 10002 01027 01033 01034 01034 01051 01051 01050 71900 1060 1060 01147 01147 01147 01147		Oomestic Limits N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	20,968 O H Irrigation Limits NIA	28.968 0 J Livestock or Wildith Limits N/A	28.968 0 P Acute Aquatic Limits N/A	28.25274 0 K Chronic Aquatic Limits NIA	200 3.00E-05 L Human Health Limits N/A	1E+100 1E+100 M Dally Max Conc ugfi N/A	5.2 1E+100 N Monthly Avg Conc ug/i N/A	22 [E+100] Daily Max Total ug/1 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/	145.2584 5.2 1E+100 0 Mon. Avg Total ug/1 N/A
Theillium, d Zinc, disso Zinc, disso Zinc, disso Coulde, to Dioxin R R R R R R R R R R R R R R R R R R R	dissolved (P) NTS NTS NTS AND CYAN Total (P) Total (P) Total (III), dissolv (M), dissolv (M), dissolv al i se, dissolve m, total rectal Total (P) Total (P) Total (P) Total (P) Total rectal Total (P) Total (P) Total (P) Total (P) Total (P) Total (P)	7440-28-0 7440-68-6 7440-68-6 57-12-5 1764-01-8 D CAS No. IDE, as To 7440-38-0 7440-38-0 7440-38-2 7440-43-9 16065-83-1 18540-29-5 7439-92-1 7439-97-6 7439-98-6 7439-97-7 7439-97-6 7439-97-7 7439-97-6 7439-97-7 7439-97-7 7439-97-7 7439-97-7 7439-97-7 7440-28-6 7440-28-6	20 10 1E-05 E STORE 1 01097 1 01002 0 01027 0 01034 0 01034 0 01034 0 01034 0 01050 7 1900 7 1900 7 1060 0 01062 0 01067 0 01147 0 01147 0 01059		Oomestic Limits N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	20,968 O Irrigation Limits NIA	28.968 0 J Livestock or Wildlift Limits N/A	28.968 0 p Acute Aquatic Limits N/A	28.25274 0 K Chronic Aquatic Limits NIA	200 3.00E-05 L Human Health Limits N/A	1E+100 1E+100 M Dally Max Conc ugfi N/A	5.2 1E+100 Nonthiy Avg Conc ug/i N/A	22 IE+100 G Delly Max Total N/A N/A N/A N/A N/A N/A N/A N/A	145.2584 5.2 1E+100 0 Mon. Avg Totel ug/1 N/A
Theillium, d Zinc, disso Zinc, disso Cyenide, to Dioxin B POLLUTA P METALS A Antimony, Chromium Chro	dissolved (P) NTS AND CYAN Total (P) Total (III), dissolv (IV), dissolv (IV), dissolv IV), d	7440-28-0 7440-66-6 57-12-5 1764-01-6 D CAS No. IDE, as To 7440-38-0 17440-38-0 17440-38-0 17440-38-1 17440-38-2 17440-41-7 17440-4	20 10 1E-05 E STORE1 1002 01097 1002 01012 01034 01034 01034 01056 71900 1060 1060 1060 1060 1060 1077 01147 01147 01147		Oomestic Limits N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	20,968 O H Irrigation Limits NIA	28.968 0 J Livestock or Wildith Limits N/A	28.968 0 P Acute Aquatic Limits N/A	28.25274 0 K Chronic Aquatic Limits NIA	200 3.00E-05 L Human Health Limits N/A	1E+100 1E+100 M Dally Max Conc ugfi N/A	5.2 1E+100 N Monthly Avg Conc ug/i N/A	22 [E+100] Daily Max Total ug/1 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/	145.2584 5.2 1E+100 0 Mon. Avg Total ug/1 N/A

RP Spreadsheet Using 0.856 ug/L Value for Selenium (Method 7742) and 0.0 ug/L value for Cyanide (as reported in reapplication). No RP for Selenium. No RP for Cyanide.

	15.5
Ambient	Effluent
Conc	Conc.
Ca (ug/l)	Ce (ug/l)
	0.01
Sinting dispersion of the second	2.8
	2.8
70.000000000000000000000000000000000000	0.380712
A contractor	
	0.866
	0.060833
96,609,4000	1.484477
\$4,000 (000)	### 0
200000000	garant a mai
	Mon Avg
Total	Total
UQA	ug/l
2000000000	200000000000000000000000000000000000000
N/A	N/A
NIA	N/A
N/A	N/A
28 74432	28.74432
N/A	N/A
N/A	N/A N/A
N/A N/A	N/A
N/A N/A	N/A
	N/A
N/A N/A	N/A
N/A	N/A
11//	1 11/0

Note: No limits in draft permit for copper, selenium, cyanide

Recommend no permit limits for selenium and cyanide

TABLE 6

Outfall 03A160 Original EPA Region 6 Spreadsheet Using 13.6 ug/L Cyanide Value

							[
\rightarrow	D:	,,,,					LANL	-	·			<u> </u>		
	Permittee NPDES Permit No.					<u></u>	NM002835	5	I					
	Outfail No.(8)						03A160							
	Plant Effluent Flow (M	CD)					0.002		··· j	For industria	and federal	acility, use th	e highest mo	nthly average f
	Plant Effluent Flow (cf						0.0031				4 months. Fo			
	FIGHT CHOOKE FOR (C)	3/					0.000					, , ,	***	
	RECEIVING STREAM						DATA INP	UT T	i					
	TEOEIVII O OTTESTI													
_	Receiving Stream Nar	ne					Ten Site C	anyon						
- 1	Basin Name						Rio Grande							
	Waterbody Segment C	Code No.					20.6.4.128							
	is a publicly owned lat		oir (enter "	"ifitsalai	e, "0" if not)	0							
	Are acute aquatic life													
71	Are chronic aqualic life	e criteria co	nsidered (1	= yes, O≃no)		Ö							
	Are domestic water su	pply chleric	a considere	d (1= yes, C)=no)		0							
7.1	Are irrigation water su	pply criteria	considere	d (1= yes, 0	=no}		0							
34	Livestock watering and	d wildlife ha	bitat criteria	a applied to	all streams	<u>'</u>								
- 65														
3.5	USGS Flow Station						USGS							
	WO Monitoring Station						SJR							
	Receiving Stream TSS						1				ter efficent TS			
	Receiving Stream Har				RANGE: 0	- 400	118				ter effluent He		data, 20 mg/	Is used)
	Receiving Stream Crit						0				ream and take			
	Receiving Stream Har		n Flow (cfs				0.00155		Enter harmon	ec model of it	odified harmo	INC THESE NO	W COLE	
	Avg. Water Temperatu	ire (C)					8.7				 		—	
	pH (Avg)		Jan 153			<u></u>	8.7		Enter 1 if ate		ogy data is no	lailable or	for intermitted	
	Fraction of stream allo		ang (r)				0		Eriter 1, it su	a a sa a murpa con	Ogy Cara is ito	ENGHOOIS OF	to mantale	11 30 0 61113.
	Fraction of Critical Lov	W FIOW			-	Inekaam	Waste Con	rentration		Livestock&	Acute	Chronic	Human	Need
				Ambient	Effluent	Acute	Domestic		Human	Domestic		Wildlife	Aquatic	Aquatic
	POLLUTANTS			Conc	Conc.	Aquatic	Supply	Aquatic	Health	Criteria	Criteria	Criteria	Criteria	Criteria
	POLLUIANIS	CAS No.	MQL	Ca (ug/l)	Ce (ug/l)				Dd,hh (ug/l	ug/l	ug/l	υσΛ	ug/l	ug/l
	Mercury, dissolved	7439-97-6		QD (ugn)		0	0	0	0	1E+100	1E+100	1E+100	1.4	0.77
		7439-97-6		104711000000	0.0042	0.008946		0.008946		2	1E+100	0.77	1E+100	1E+100
	Molybdenum, dissolve			144000000000		0.	0	0	0	1E+100	1000	1E+100	1E+100	1E+100
	Molybdenum, total red			Analina an		ō	Ö	ō	0	1E+100	1E+100	1E+100	7920	1895
	Nickel, dissolved (P)			SCHEET CHEET	0.90604	· · · · · · · · · · · · · · · · · · ·			1.286577	700	1E+100	1E+100	538,6129	59.82327
	Selenium, dissolved (0	0	0	0	50	130	50	1E+100	1E+100
	Selenium, dis (SO4 >		5	464468860		0	0	0	0	50	250	50	1E+100	1E+100
	Selenium, total recove			was a particular		0	0	0	0	1E+100	1E+100	5	20	5
	Silver, dissolved	7440-22-4		\$45-60-6-5956\$		0	0	0	0	1E+100	1E+100	1E+100	4.276174	1E+100
3.3	Thattum, dissolved (f	7440-28-0	0.5	Antrophic (0	0	0	0	2	1E+100	1E+100	1E+100	1E+100
	Zinc, dissolved	7440-66-6		eparenting)	1.955556	4.165333	4.165333	4.165333	2.776889	10500	2000	25000	185.9941	140.9205
	Cyanide, total recover	57-12-5	10	palking typing	13.8	28.968	28.968	28.968	19.312	200	1E+100	5.2	22	5.2
	Dioxin	1764-01-6	0.00001	11 11 11 11 11 11	Test set, talling	0	0	0	0	3.00E-05	1E+100	1E+100	1E+100	1E+100
							Liveslock	Acute	Chronic	Human	Daily	Monthly		
	POLLUTANTS	CAS No.	STORET		Domestic	imigation	or Wildlife	Aquatic	Aquatic	Health	Max Conc	Ауд Солс	Total	Total
					Limits	Limits	Limits	Limits	Limits	Limits	ug/l	ug/i	ug/)	ndy
	METALS AND CYAN	IDE, as To											See Deport of the State of Company of Compan	750155422700
	Antimony, Total (P)	7440-38-0	01097		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		7440-38-2		3.1.54.154. <u>198</u> 3	N/A	N/A	N/A	N/A	N/A	13.5	13,5	9	19.98	13.32
	Beryllium, Total	7440-41-7			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<u> </u>		7440-43-9			N/A	N/A	N/A	N/A	N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A
	Chromium (III), dissol	16065-83-1	01033	l	N/A	N/A	N/A	N/A N/A	N/A N/A	N/A N/A	N/A	N/A N/A	N/A	N/A
22	Chromium (VI), dissol	18340-29-6	01034	ļ	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Chromium, Total			agramus, NOS	N/A N/A	N/A	N/A	15.70717		N/A			32.04262	
	Copper, Total	7440-50-8		.,	N/A N/A	N/A	N/A	15.70/1/ N/A	N/A N/A	N/A	15.70/1/ N/A	N/A	N/A	N/A
713	Lead, Total	7439-92-1		 	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Manganese, dissovied	7439-96-5			N/A	N/A N/A	NVA	NA	N/A	N/A	N/A	N/A	N/A	N/A
	Mercury, Total	7439-97-6			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Mercury, Total Molybdenum, dissolve				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Molybdenum, dissolve			 	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Nickel, Total (P)	7440-02-0		l	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Setenium, Total (P)	7782-49-2		-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Selenium, Total (SO4				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Selenium, Total (504				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Silver, Total	7440-22-4		l	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Thallium, Total (P)	7440-28-0			NVA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Zinc, Total	7440-66-6		l	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
														
	Cyanide, total recover	57.12.5	00720	1 1 1 1 1 1 1 1 1	N/A	N/A	5.2	22	N/A	N/A	5.2	5.2	5.2	5.2

RP Spreadsheet Using 1.579 ug/L Value for Cyanide (Mgeometric Mean per NMIP). No RP for Cyanide.

Ambient Conc	Effluent Conc.
Ca (ug/l)	Ce (ug/l)
	0.0042
Ale Participate	Valentaia
101 101 175 101	0.90604
N-2004083	11111111111111111
History,	2000,000,000
14.3, 14.34	Appropriate and the second
T + + 4743 (x 1x 2)	3 5 5 6 6 5 1 1 2
13,441,541,141	
24,445, 6 p.	1.955556
	1.579
	Aliques 4 (1,5)
Dally Max	Mon. Avg
Total	Tolal
ug/	up/i
ming of high power distributions (A) and the many of the control o	Security of the second
N/A	N/A 13.32
19.98 N/A	N/A
N/A	N/A N/A
N/A	N/A
N/A	N/A
N/A	N/A
32.04262	21.36175
NA	NA
N/A	N/A
N/A	NA
N/A	N/A
N/A	N/A

Recommend no permit limit for cyanide